CHAPTER 5

TRAINING

LEARNING OBJECTIVES

Upon completion of this chapter, you should be able to do the following:

1. Explain how to conduct proper and effective training.

2. Identify the various methods and techniques of instruction.

3. Explain how to train personnel by using the demonstration, discussion, and lecture methods.

4. Explain how to develop an effective unit training program.

5. Describe the purpose, in general terms, of long-range and short-range training plans and related training schedules.

6. List the procedures for maintaining division training records.

7. Describe how to update training accomplishments in division training records.

The training of our personnel is one of the most important challenges we face as petty officers. We can only expect top performance from our Navy personnel when their knowledge and skills are up to the requirements of their billets. The better trained our sailors are, the more productive they will be.

Training is the process of imparting knowledge to people so that they become capable of performing their assigned duties in an acceptable manner. Training is also used to qualify people to perform in positions of greater difficulty and responsibility.

This chapter covers basic features and requirements of an effective training program, training methods, instructional methods and techniques, and the unit training program.

Have you ever asked yourself, What is the best and most effective way to train my people? Well, a good way to start is to review the guidelines and training policies stated in OPNAVINST 3120.32B, *Standard Organization and Regulations of the U.S. Navy,* chapter 8. You then need to learn the requirements and features involved in setting up effective training. Before you begin to set up training, however, you need to understand its importance.

IMPORTANCE OF TRAINING

As a petty officer second class, you will learn the importance of training. At this level you will probably conduct many training sessions on how to operate and maintain equipment and systems. The manner in which you conduct those training sessions can have a positive or negative effect on the operational readiness and performance of your command.

FEATURES OF EFFECTIVE TRAINING

An effective unit training program has three basic features, (1) compatibility, (2) instruction and evaluation, and (3) analysis. Keep in mind that a training program must have each of those features to be effective.

Compatibility

The training program works within the organization's framework and schedule. As a general rule, training in a work situation is more effective when conducted in small groups early in the day

(before the normal work routine begins). Allowing personnel to learn by doing (skill) is also more effective than giving them group lectures (knowledge).

To be successful, training MUST be a normal, scheduled part of the division routine, while on-the-job training should be continuous in every work center. Allow time for a carefully thought-out, hands-on training program that is free from the ordinary pressure of everyday work. Training should include a certain amount of repetitiveness to be effective. It should also take place for short periods on a frequent basis rather than for longer periods spaced farther apart. Effective training should last 45 minutes to 1 hour and be held three times a week. Training conducted for 2 or 3 hours once a week simply isn't as effective.

Instruction and Evaluation

The training requires instruction of personnel and evaluation of their individual progress and ability to function efficiently and safely as a team.

Analysis

An analysis of training effectiveness involves observing group and individual performance, comparing results with standard criteria, and recognizing deficiencies and methods for improvement.

REQUIREMENTS FOR EFFECTIVE TRAINING

We discussed the three features that make a well-developed and effective training program. Now, we will cover five requirements of effective training. As you read each of the requirements, ask yourself, Am I using this step or requirement in my training now?

1. **Dynamic instruction** —You need to prepare instruction that shows you have a thorough knowledge of the subject and then present the information in a professional manner. Repeat information for emphasis only.

2. **Personal interest** —Persons in authority must show an interest in your training program. Division Officers must ensure the petty officers responsible for training and qualifying subordinates know the subject matter. The petty officers must also possess the practical skills to clearly demonstrate and communicate the subject matter.

3. **Quality control** —The chain of command must reinforce training. A senior member can do that by questioning subordinates about information they are credited with knowing or by requiring them to demonstrate skills they have attained.

4. **Technical support** —Supervisors must ensure manuals, technical publications, operating procedures, safety precautions, and other references required for training are available and current.

5. **Regular schedule** —You must schedule instruction on a regular basis.

TRAINING METHODS

Of the many training methods available, you will find some work more effectively for you than others. You will also find that each method has its pros and cons.

THE SCHOOL OF HARD KNOCKS METHOD

The "school of hard knocks" is the least effective method of training. When using this method, a supervisor places trainees in a work situation and leaves them to learn as best they can on their own. That is a crude and wasteful way to learn. It does not guarantee trainees will learn the skills they need to do their jobs properly. It also encourages the development of bad working habits that are frequently difficult to correct.

THE APPRENTICESHIP METHOD

The apprenticeship method involves on-the-job training of personnel individually or in small groups by experienced workers. The experienced workers show the trainees the ropes and teach them all they need to know about their jobs. Properly used, this method can be extremely successful. Unfortunately, it also has many drawbacks. Its success depends on the quality of the experienced worker as an instructor. Its success also depends on the quality of the training guides the instructor and the trainee use. Without a training guide, the instructor may forget some information or inadvertently pass on bad work habits. Problems arise when the instructor neglects to preplan, is not a good instructor, or resents being saddled with an apprentice to train.

GROUP TRAINING

In group training, trainees receive training in one large group. This method allows a large number of people to learn at the same time, thereby reducing the time devoted to training. The instructors use training aids, demonstrations, lectures, and group discussions, which increase the effectiveness of the training. However, this method is effective only for information that does not require a lot of "hands-on" practice with complex processes or equipment.

THE SCHOOLHOUSE METHOD

Trainees of the schoolhouse method attend a specially organized Navy or civilian training course. This method of training is highly effective, but the person must frequently accept temporary additional duty (TAD) at another location to attend the course. Thus, the command loses the individual for the duration of the training. That drawback, coupled with the expense of sending the person TAD, reduces the effectiveness of this method. Commands can make it effective, however, by using a few people to teach many. That is, commands can send a few people TAD to learn new skills; after those people return, they can then teach the skills to their shipmates.

THE IN-HOUSE TRAINING METHOD

The best training method is an in-house training program that combines the apprenticeship, group, and schoolhouse methods to meet the needs of your command.

Any effective training method requires carefully planned and properly scheduled lessons. When developing lesson plans and setting up schedules for in-house training, remember two important elements. First, the larger the volume of information, the more time the trainee will require to absorb it. Second, the speed at which people learn varies, though given enough time and enough practice, most people can learn any skill. Through systematic training people can learn jobs in a fraction of the time normally required through self-study. Planning ensures the trainee will receive in-house training in everything required to perform the job. Scheduling provides the time needed for training.

The Navy uses four types of in-house training: orientation, on-the-job, refresher, and career or professional development training.

Orientation Training

Orientation training is designed to acquaint Navy personnel with their new organization, their place in the organization, and the part the organization plays in carrying out the Navy's mission(s). Every person entering an organization or unit for the first time needs orientation training. Before people can become enthusiastic about their work, they must know something about the organization and feel a sense of pride in being a part of it. Generally, new people are apt to be more attentive, open-minded, and eager to learn than the "old hands"; and what they learn is more likely to remain indelibly fixed in their minds. Therefore, a good orientation is important to new people.

On-the-Job Training

On-the-job training teaches Navy personnel how to do the jobs to which they have been assigned. Since that is among the most important training supervisors do, they must conduct it with great care. Careless or indifferent training could result in higher operating costs; in extreme cases, it could prevent mission accomplishment or cost someone his or her life or a limb. Untrained personnel are the most expensive individuals on the Navy's payroll. Untrained people always cost more in dollars and operational capability than a trained, mission-capable person, The cheapest, most cost-efficient way to train new personnel is through a regularly scheduled training program.

Refresher Training

Refresher training helps people keep "up to speed." It enables people to brush up on knowledge and skills they already have but do not use often. It also teaches them about any changes in methods or techniques. Refresher training takes place after people have completed job training.

Career or Professional Development Training

Career or professional development training develops and improves the knowledge, skills, and abilities of your people to prepare them to fill positions of greater responsibility. Such training helps people prepare for advancement even though it may not relate to their immediate jobs.

INSTRUCTIONAL METHODS
AND TECHNIQUES

All methods of instruction can be classified as telling, lecturing, or discussing; showing or demonstrating; or any combination of these. Often the best method of teaching combines the various methods. You must decide which methods to combine and the emphasis to place on each unless the curriculum itself dictates the combination needed. In making that decision, consider (1) the nature of the trainees, (2) the subject matter, and (3) the limitations of time.

LECTURE METHOD

The lecture is still the most frequently used method of instruction. However, presenting a lecture without pausing for interaction with trainees can be ineffective regardless of your skill as a speaker. The use of pauses during the lecture for direct oral questioning creates interaction between instructor and trainee. Unfortunately, when classes are large, the instructor cannot possibly interact with all trainees on each point. The learning effectiveness of the lecture method has been questioned because of the lack of interaction; but it continues as a means of reaching a large group at one time with a condensed, organized body of information. Providing trainees with lesson objectives before the lecture will enable them to listen more effectively. It will help them to take concise, brief notes concerning the objectives rather than writing feverishly throughout the lecture.

We discuss the lecture method first because the techniques involved serve as the basis for other methods of training. Those techniques apply not only to lectures, but to many other kinds of presentations in which oral explanations play a secondary, but important, role. Every method depends on oral instruction to give information, to arouse attention and interest, and to develop receptive attitudes on the part of the trainees. Therefore, as an instructor, organize your oral presentations with the following techniques in mind:

1. Maintain good eye contact. As you speak, shift your gaze about the class, pausing momentarily to meet the gaze of each trainee. Make the trainees feel what you have to say is directed to each one personally. Your eyes as well as your voice communicate to them; and their eyes, facial expressions, and reactions communicate to you. Watch for indications of doubt, misunderstanding, a desire to participate, fatigue, or a lack of interest. If you are dealing with young trainees, you may sometimes need to remind them that they must give undivided attention to the instruction.

2. Maintain a high degree of enthusiasm.

3. Speak in a natural, conversational voice.' Enunciate your words clearly. Make certain the trainees can hear every spoken word.

4. Emphasize important points by the use of gestures, repetition, and variation in voice inflection.

5. Check trainee comprehension carefully throughout the presentation by watching the faces of the trainees and by questioning.

Observing facial expressions as an indication of doubt or misunderstanding is not a sure way of checking on trainee comprehension. Some trainees may appear to be comprehending the subject matter when, in reality, they are completely confused. Trainees who are in doubt often hesitate to make their difficulty known. They may hesitate because of natural timidity, fear of being classified as stupid, or failure to understand the subject matter well enough to explain where their difficulty lies.

Frequently ask if the class has any questions, thus giving the trainees an opportunity to express any doubts or misunderstandings on their part. Based on your personal knowledge and past experiences, ask specific questions about those areas which might give trainees the most trouble. Some instructors make the mistake of waiting until the end of the presentation to ask questions. The best time to clear away mental fog is when the fog develops. Mental fog tends to create a mental block that prevents the trainee from concentrating on the subject matter being presented. (Later in this chapter we discuss techniques related to asking questions, calling upon trainees to answer questions, and evaluating answers.)

6. Instruct on the class level. Use words, explanations, visual illustrations, questions, and the like, directed to the needs of the average trainee in the class.

7. Stimulate trainees to think. Think, as used here, refers to creative thinking rather than to a mere recall of facts previously learned. Use a number of instructional devices for stimulating trainee thinking. Among those devices are thought-provoking questions, class discussions,

problem situations, challenging statements, and rhetorical questions (a question to which no answer is expected). Another device is the use of suggestions, such as "I want you to think along with me," and "Consider your reaction to this situation."

DISCUSSION METHOD

Discussion methods are effective in getting the trainees to think constructively while interacting with the rest of the group. Conduct discussions with large or small groups; however, small groups are more desirable. You can control and direct a small group more easily than you can larger groups of 10 or more trainees. If a group is extremely large, break it into smaller groups or teams with a discussion leader for each team.

The use of the terms *class discussion* and *directed discussion* in this text refer to a method in which you direct and control the verbal exchange of the class. To use this method, first lay a suitable foundation for the discussion by asking one or more challenging questions. Then stimulate the trainees to discuss the basic questions; finally, guide the discussion to a logical conclusion.

In the directed discussion, you act as the chairman or moderator. As a result of your questions, suggestions, and redirection of ideas, the trainees in the class become genuinely interested in exploiting all angles of the central problem. They forget the normal classroom restraints and begin to talk to each other as they would when carrying on an ordinary conversation. A true class discussion requires a trainee-to-trainee interchange of ideas. An instructor-to-trainee interchange of ideas during a typical question-and-answer period is *not* a class discussion.

To conduct a class discussion, you must make more extensive and more thorough preparations than you would for a lecture. Although the trainees supply the ideas, you must have a thorough knowledge of the subject matter to be able to sift out pertinent ideas. Be aware of ideas that may lead the trainees off on a tangent; steer the discussion away from these ideas. Guide the trainees away from irrelevant ideas and toward the desired goals without dominating the discussion.

You can adapt certain ideas to discussions more easily than others. The most easily adaptable require trainees to compare, contrast, and weigh facts, concepts, and ideas. They also require trainees to solve problems, particularly those dealing with human relations, and to glean hidden or obscure information from scattered sources. To receive full benefit from the discussion, the trainees should have some previous familiarity with the subject matter. They could be familiar with the subject matter as a result of outside reading, prior Navy training and experience, or civilian training and experience.

To help make the class discussion a success, arrange the classroom in such a manner that you are a part of the group. If possible, arrange for the group to sit around a table so that all of the trainees can see each other and you. Use the discussion method only when classes are small enough to allow everyone a chance to take part.

Use the following techniques in conducting a classroom discussion:

1. Build a background for the discussion. The development of an appropriate background tends to focus the trainees' attention upon the central problem. An appropriate background also limits the problem to an area that can be covered in a reasonable length of time and creates interest in the solution of the problem.

2. Ask thought-provoking discussion questions.

3. Ask questions to keep the discussion in bounds, to bring out the desired aspects of the main problem, and to guide the discussion toward the desired conclusion.

4. Encourage the timid, restrain the talkative, and maintain a standard of discipline in keeping with the maturity level of the trainees.

5. Be willing to accept, temporarily, an incorrect idea. A hasty "No!" or' 'You're wrong!" can bring sudden death to any discussion.

6. Avoid expressing your own ideas until the trainees have had ample opportunity to express theirs.

7. Summarize the discussion at intervals. Use the chalkboard for this purpose. Give due credit to the trainees for their contributions. Clear up misunderstandings and emphasize correct ideas.

DEMONSTRATION METHOD

Use the demonstration or "doing" method to teach skills. Demonstrate step-by-step the procedures in a job task, using the exact physical procedures if possible. While demonstrating, explain the reason for and the significance of each

step. To be effective, plan the demonstration in advance so that you will be sure to show the steps in the proper sequence and to include all steps.

If you must give the demonstration before a large group or if the trainees might have trouble seeing because of the size of the equipment involved, use enlarged devices or training aids. When practical, allow trainees to repeat the procedure in a "hands on" practice session to reinforce the learning process. By immediately correcting the trainees' mistakes and reinforcing proper procedures, you can help them learn the task more quickly. The direct demonstration approach is a very effective method of instruction, especially when trainees have the opportunity to repeat the procedures.

Techniques Used in the Demonstration Method

The basic method of instruction for teaching skill-type subject matter is the demonstration-performance method of instruction. This method is recommended for teaching a skill because it covers all the necessary steps in an effective learning order.

The demonstration step gives trainees the opportunity to see and hear the details related to the skill being taught. Those details include the necessary background knowledge, the steps or procedure, the nomenclature, and the safety precautions. The repetition step helps the average and slow learners and gives the trainees an additional opportunity to see and hear the skill being taught. The performance step gives all trainees the opportunity to become proficient. In short, this method is recommended because it leaves nothing to chance.

For convenience, we discuss the techniques for imparting skills in steps, rather than activities. When setting up an instructional plan, understand that, you don't have to follow these steps in the sequence given below; instead choose the steps in the sequence best suited to the needs of the trainees. Although you will always include a demonstration step and a performance step, you must use judgment in selecting techniques to make the various steps effective.

DEMONSTRATION STEP. —Every Navy skill, mental or physical, has a body of background knowledge the trainees must know to perform the skill properly. You can best teach some kinds of background knowledge in a standard classroom with adequate, comfortable seating and the display of training aids. You will present other kinds of knowledge in ships or laboratories in conjunction with actual demonstrations.

Develop proper attitudes while teaching the skill. Developing the desire to do a perfect job, the desire to exercise economy of time and effort, and the desire to protect the lives of others are all important attitudes.

Use a variety of techniques in presenting background knowledge and in developing proper attitudes. The following techniques relate more to the actual demonstration:

1. Position the trainees and training aids properly. If you direct trainees to gather around a worktable or a training aid, make sure every trainee has an unobstructed view.

2. Show and explain each operation. Perform each operation in step-by-step order. Whenever possible, give the instructions while you demonstrate. Do not hurry; don't emphasize speed in performing operations or in moving from one operation to another during the demonstration step. Make certain the trainees understand the first step before you proceed to the second step, and so on. Repeat difficult operations. Pause briefly after each operation to observe trainee reactions and to check trainee comprehension.

In certain skills a distinction between right and left is important; for example, the manual of arms or knot tying. When teaching the manual of arms, or skills of a similar nature, use an assistant instructor or a well-coached trainee to demonstrate the skill while you give instructions. This method of instruction allows you to observe the reaction of the trainees.

3. Observe safety precautions. By observing safety precautions, you may take a few more seconds to rig a safety line, don a safety mask, or tag an electric cable; but the time is not wasted. You are impressing the trainees with the importance of exercising extreme care in dealing with potentially dangerous equipment.

4. Give proper attention to terminology. Call each part of a training aid by its proper name each time you call attention to it. For trainees to remember the correct nomenclature, however, requires more than your use of the proper names

of parts. The following suggestions should prove helpful:

a. List the names of parts on the chalkboard.

b. Refer trainees to any available chart that shows the parts and names of parts.

c. Conduct a terminology drill on the parts of the training aid while the aid is in its assembled or disassembled condition.

5. Check trainee comprehension carefully. Ask questions during the demonstration step—questions that require the trainees to recall nomenclature, procedural steps, underlying principles, safety precautions, and the like. Watch for class reactions that show a lack of attention, confusion, or doubt; but do not depend solely upon visual observations. Instead, check comprehension after each major step or procedure.

REPETITION STEPS. —Generally, you need to use one or more repetition steps between the demonstration step and the performance step. In deciding how many and what kinds of repetition steps to include, consider several elements, the most important being the complexity of the skill. As a general rule, the more complex the skill, the greater the need for repetition steps. Another element you must consider is the nature of the skill. In some skills, such as visual signaling, speed is an essential element. In other skills, ease of manipulation, conservation of materials, or safety is the essential element. Last, consider the ability of the trainees to acquire the skill and the amount of time available for training.

Try using the following repetition steps; Navy schools have used them with good results:

Instructor Repetition. Repeat the job without noticeable interuptions, restating the procedures and the important safety factors while performing the steps. This step has two important, though secondary purposes. First, it shows continuity (how the procedural steps follow each other under actual operating conditions). Second, it sets standards of ease, speed, and accuracy.

Trainee Repetition. Ask a trainee to act as an assistant instructor by repeating the job and restating the procedure and the important safety factors while performing each step. Important secondary purposes of this step are to motivate the trainees by proving they can do the job with

the instruction you have given and to help you see areas that need strengthening. One of the advantages of this step over the instructor repetition step is the great amount of trainee interest generated.

Group Performance Repetition. Repeat the job slowly, one step at a time, while the trainees watch and imitate your actions, one step at a time. Use this performance repetition step to teach simple, nondangerous physical skills such as knot tying, sending semaphore, and performing the manual of arms. You will also find it effective in teaching mental skills, such as solving mathematical or maneuvering problems or filling in forms.

Coach-and-Pupil Repetition. Divide trainees into small groups. If a group consists of two trainees, one (as a pupil) performs the job while the other (as the coach) checks the performance. After the pupil has acquired a certain degree of proficiency, have the coach and the pupil reverse positions. Use this step to teach skills in which performance involves potential danger to personnel or equipment; for example, firing small arms or troubleshooting electronics equipment.

PERFORMANCE STEP. —Acquaint the trainees with the activity they will complete when using a skill. Then organize the trainees into working groups, supervise their practice of the skills involved, reteach the skills, and evaluate and record the results.

Supervise trainees while they practice the skills you demonstrated during the preceding instruction until they attain the required proficiency.

Some skills (knot tying, welding, machinery repair) require a proficiency in creating a finished product. Therefore, allow trainees to practice those skills until they can meet the required standards of ease and precision needed to make the product. Normally, speed is not important.

Communications skills (typing, visual signaling, radio-code receiving) require a proficiency in speed and accuracy. Allow trainees to practice those skills until they can meet the required proficiency in speed and accuracy.

General Hints

Make every effort to get trainees to observe correct procedures the first time they try a new task. The most effective learning results when trainees use a skill immediately after you have

taught it; so as soon as you teach trainees to do a job, have them practice it.

Teaching applicable safety precautions is especially important. Teach a safety precaution just before reaching the point in your demonstration where it applies. Tell the reason for the precaution so that the trainees will understand the need to comply with it.

Patience is a virtue for any petty officer. If it does not come naturally to you, you must train yourself to be patient. A slow learner may never acquire the knowledge or skill you are trying to impart if you are impatient.

Avoid sarcasm toward a bungler; that person may be trying harder than you suspect. Nothing exhausts the patience of the expert as much as the fumbling attempts of a beginner; however, the instructor must patiently demonstrate and explain until the trainee acquires the needed competence. Good instruction means a more effective crew, and such an asset justifies any amount of patience.

If you find that your trainees have not learned what you tried to teach them, do not react as if they disobeyed orders. If trainees do not understand a certain lesson or operation, that could indicate a poor job of teaching. The old saying, "If the learner hasn't learned, the teacher hasn't taught" might apply in some situations.

RELATED TECHNIQUES

You can use instructional techniques with any of the above methods. These techniques include the use of the lesson *summary, oral questioning,* and *training aids.*

Lesson Summary

The term *summary* as used here refers to that part of the lesson in which the instructor reviews the material covered. In summarizing, keep in mind two major aims. First, you want to help the trainees identify and organize the subject matter. Second, you want to assist the trainees in understanding and, where necessary, in memorizing the subject matter. Use the following techniques in summarizing a lesson:

1. Introduce the summary properly.
2. Summarize the subject matter thoroughly. Plan the summary so that it assists the trainees in organizing the important subject matter into a form more easily learned. Review the actual subject matter, not just the topic, thoroughly enough for the trainees to gain an adequate understanding of the subject. Having the trainees review the topics (class notes) will aid them in understanding the subject.

3. Avoid a strictly oral summary, if possible, Remember, if you need training aids to make the right kind of lesson presentation, then you also need them for the right kind of summary.

4. Summarize at appropriate intervals. If the lesson is long—for example, 2 or 3 hours in duration—you would be wise to summarize at the end of each period or at the end of each significant area of subject matter. Trainees will absorb short summaries better than an unduly long summary at the end of the complete lesson.

Oral Questioning

We cannot place enough emphasis on the importance of questioning in *any* teaching situation. Oftentimes, the difference between a dull, boring lecture and a lively discussion is only a matter of some well-planned, well-directed oral questions. The ability to direct thought through questioning is recognized as one of the most valid proofs of teaching skill. A direct relationship exists between your success as an instructor and the quality and quantity of oral questioning you use in teaching. Therefore, you will find the following techniques of invaluable use to you, as the instructor:

1. **Stimulate trainee thought.** Ask questions that call for the application of facts rather than just facts alone. Facts can easily be committed to memory and require little or no thought on the part of the trainee.

2. **Establish a level of instruction.** Ask questions that require trainees to comment on previous experience in the subject matter you are going to teach. By asking a series of oral questions, you can determine the trainees' level of knowledge in a particular subject matter. That information will enable you to determine the level at which you should begin instruction.

3. **Arouse interest.** Asking a general question, such as, How many of you have fired a .50-caliber machine gun? or How many persons died on the highways last year? will serve to clear trainees' minds of any extraneous thoughts. Such questions aid in motivating trainees as they mentally search

for an answer. This type of questioning is generally used to generate interest in a large block of subject matter, usually a lesson as a whole.

4. **Focus the trainees' attention.** By asking a question about a particular part of a model, mock-up, chart, demonstration piece, or chalkboard drawing, you can direct the trainees' attention to that immediate area.

5. **Review the subject matter.** Devise questions requiring trainees to solve problems that will provide them with an opportunity to apply knowledge. Again, ask questions that emphasize the ability to reason and not the ability to recall mere facts.

6. **Drill on the subject matter.** To help trainees remember certain facts, figures, shapes, formulas, and so forth, use preplanned oral questions to reinforce a subject matter in the trainees' minds. This technique will eventually lead to the trainees' mastery of the subject on which they are being drilled.

7. **Check for comprehension.** Ask questions covering the main points of the lesson to detect and correct errors in thinking and to locate areas you need to reteach.

8. **Increase trainee participation.** Encourage trainees to take an active part in the instruction by allowing them to both answer and ask questions.

9. **Increase trainee learning.** Encourage trainees to ask questions to help them learn. Trainees remember information longer if given in answer to their own questions.

10. **Develop communication skills.** Allow trainees to ask and answer questions to improve their speaking skills. Active involvement in the class discussion increases their listening skills, Asking and answering questions helps trainees organize their thoughts.

Training Aids

To get the best results from training aids, use the following procedures:

1. Always preview the aid. Look at the film, listen to the recording, examine the chart, and check the visibility of the chalkboard drawing before the instruction period. Never lose valuable instruction time and waste the time of the trainees by stopping to learn how an aid works or to adjust it. During your preview, check for points that need clarification or emphasis.

2. Select and prepare aids that emphasize or illustrate points in the lesson. Rarely, if ever, use aids only because they are pretty or nice to look at. Test the usefulness of an aid by asking yourself what important points it reveals or clarifies?

3. Plan how and when you will use aids during the lesson. Mount or prepare the aid, but do not expose it in advance. Exposed aids may distract the group's attention from other steps in the lesson.

4. Plan how you will introduce the aid and what you will say about it. Provide time for the trainees to view, listen to, examine, handle, or operate the aid. However, don't expect them to listen to you at the same time they are reading or studying the aid.

5. When possible, have a trainee take over as the instructor by going through the explanations and steps you have given. That will help clear misconceptions and keep the trainees' attention.

6. Be sure every trainee can see and hear the aid and has the opportunity to handle it if required.

7. When using an aid, stand so that you do not block the trainees' view; use a pointer to locate parts on the aid; and above all, talk to the trainees, not to the aid.

UNIT TRAINING PROGRAM

We will now discuss short-range and long-range training plans. We will also briefly discuss training accomplishment records.

LONG-RANGE TRAINING PLAN

The long-range training plan consists of your command's training goals and operating schedules. It provides the framework for the

development of the short-range training plan. The long-range training plan should include the following information:

1. The Annual Employment Schedule (similar to fig. 5-1)
2. A list, including frequency, of all required examinations, inspections, certifications, and assist visits (similar to fig. 5-2)
3. A list of all type commander (TYCOM) required exercises including periodicity and the date they were last conducted (similar to fig. 5-3)
4. A list of off-ship school and Navy enlisted classification code (NEC) requirements, including the names of the personnel who hold these qualifications (similar to fig. 5-4)
5. A list of all lectures and seminars appropriate to each training group (similar to

fig. 5-5) (This list should include, as a minimum, the Fundamental and Systems topics from applicable personnel qualification standards [PQS].)

The training officer and department heads are responsible for developing and maintaining the long-range plan. The department head consolidates the information required for the long-range plan for all the training groups within the department and forwards the department long-range training plan to the training officer. The training officer consolidates the long-range plans received from each department and adds all unit level training requirements (e.g., general military training [GMT]), indoctrination training). The training officer then consolidates this information into one package and presents it to the executive officer for review and the commanding officer for

Figure 5-1.-Example of an Annual Employment Schedule.

ENGINEERING   DEPARTMENT

REQUIRED EXAMINATIONS, INSPECTIONS, CERTIFICATIONS, AND ASSIST VISITS

DESCRIPTION	DATE DUE	DATE SCHEDULED
OPERATIONAL PROPULSION PLANT EXAM	11/86	10-11 OCT 86
3-M INSPECTION	01/87	
COMMAND INSPECTION	03/87	03/87
INSURV UMI	05/88	

Figure 5-2.-Example of a Required Examinations, Inspections, Certifications, and Assist Visits list.

ENGINEERING   DEPARTMENT

TYCOM   REQUIRED   EXERCISES

EXERCISE NUMBER AND TITLE	PERIODICITY	DATE(S) CONDUCTED
MOB-E-1-R LOSS OF MAIN FEED CONTROL	TRX - QUARTERLY SELEX - ONCE/CYCLE	TRX- 1/19/86 SELEX- 7/3/85
MOB-E-2-R HIGH WATER IN BOILER	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 1/19/86 SELEX- 12/20/85
MOB-E-3-R LOW WATER IN BOILER	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 2/10/86 SELEX- 7/3/85
MOB-E-5-R LOSS OF BOILER FIRES	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 2/10/86 SELEX- 12/20/85
MOB-E-7-R BOILER EXPLOSION/FLAREBACK	TRX- QUARTERLY SELEX - ONCE/CYCLE	TRX- 2/10/86 SELEX- 12/20/85
MOB-E-8-R MAJOR FUEL OIL LEAK	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 2/11/86 SELEX- 12/19/85
MOB-E-9-R FIRE IN BOILER AIR CASING	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 2/11/86 SELEX- 7/3/85
MOB-E-10-R LOSS OF CONTROL AIR	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 1/19/86 SELEX- 12/20/85
MOB-E-11-R WHITE SMOKE	TRX- QUARTERLY SELEX- ONCE/CYCLE	TRX- 2/12/86 SELEX- 7/17/85
MOB-E-12-R LOSS OF VACUUM/HOT CONDENSER	TRX- QUARTERLY SELEX - ONCE/CYCLE	TRX- 2/11/86 SELEX- 12/20/85
MOB-E-13R UNUSUAL NOISE/VIBRATION IN MAIN ENGINE	TRX - QUARTERLY SELEX - ONCE/CYCLE	TRX - 1/19/86 SELEX- 7/3/85
MOB-E-14R JAMMED THROTTLE	TRX - QUARTERLY SELEX- ONCE/CYCLE	TRX- 2/12/86 SELEX- 12/20/85
MOB-E-15-R HOT BEARING	TRX - QUARTERLY SELEX - ONCE/CYCLE	TRX- 2/11/86 SELEX- 12/19/85
MOB-E-16-R LOSS OF LUBE OIL PRESSURE	TRX- QUARTERLY SELEX - ONCE/CYCLE	TRX- 2/12/86 SELEX- 7/17/85
MOB-E-17R MAJOR LUBE OIL LEAK	TRX - QUARTERLY SELEX- ONCE/CYCLE	TRX- 1/19/86 SELEX- 12/20/85
MOB-E-18-R	TRX- QUARTERLY	TRX- 2/10/86

Figure 5-3.-Example of a TYCOM Required Exercises form.

ENGINEERING DEPARTMENT

OFF SHIPS SCHOOLS AND NEC REQUIREMENTS

SCHOOL/NEC REQUIRED	NO. REQ.	WHO ATTENDED	EAOS/PRD
P4505 STM PROP MAINT SUP (SCHOOL: A-653-0083)	2	BTCS A.A. ALFA	4/90
		BT1 C.C. CHARLIE	9/88
S4512 HAGAN MAINTENANCE (SCHOOL: A-651-0041)	2	BTC B.B. BRAVO	3/87
		BT1 D.D. DELTA	1/89
S4532 ABC CONSOLE OPERATOR (SCHOOL: A-651-0049)	6	BT1 E.E. ECHO	2/89
		BT1 C.C. CHARLIE	9/88
		BT1 D.D. DELTA	1/89
		BT2 F.F. FOXTROT	3/90
		BT2 G.G. GOLF	4/87
		BT2 H.H. HOTEL	7/88
P4291 REEFER & AC (CENTRIFUGAL) (SCHOOL: A-710-0025)	2	MM1 R.R. ROMEO	9/91
		MM2 S.S. SIERRA	12/89
S4954 GEN MAINT WELDER (SCHOOL: A-701-0026)	2	HT2 T.T. TANGO	1/88
		HT2 W.W. WHISKY	5/90

Figure 5-4.-Example of a required schools/NEC list.

TRAINING GROUP LECTURE TOPICS

FOR B DIVISION

B1 MECHANICAL THEORY	B27 SHORE SERVICE STEAM
B2 BOILER THEORY	B28 FLASH TYPE DISTILLING PLANT
B3 ENGINEERING SAFETY	B29 MAIN SHAFTING, BRGS, PROPS
B4 BASIC STEAM CYCLE	B30 MAIN DRAIN SYSTEM
B5 BOILER SYSTEMS	B31 FIREMAIN SYSTEM
B6 FUEL OIL SERVICE SYSTEM	B32 POTABLE WATER SYSTEM
B7 COMBUSTION AIR	B33 BALLAST, DEBALLAST, STRIPPING
B8 MAIN STEAM SYSTEM	B34 RESERVE FEED
B9 1200 PSI AUX STEAM SYSTEM	B35 F.O. STORAGE & TRANSFER
B10 600 PSI AUX STEAM SYSTEM	B36 HP AIR SYSTEM
B11 REDUCED PRESSURE STEAM	B37 BROMINE FEED
B12 PROPULSION TURBINES / RED GEAR	B38 ABC SYSTEM
B13 MAIN CONDENSERS	B39 TECH MANUAL USE
B14 SW CIRC SYSTEMS	B40 VALVE MAINTENANCE
B15 MAIN CONDENSATE SYSTEM	B41 PAINTING & PRESERVATION
B16 MAIN AIR EJECTORS	B42 EOSS USE
B17 MAIN & AUX GLAND STEAM	B43 LAGGING

Figure 5-5.-Sample Training Group Lecture Topics list.

approval. Once approved by the commanding officer, this consolidated package will become the unit long-range training plan.

When you receive your unit's copy of the long-range training plan, provide a copy of applicable portions to each training group. Since the training officer keeps the unit's long-range training plan up to date, provide him or her with updated information periodically at the Planning Board for Training. The long-range training plan, when updated regularly, provides the unit with a dynamic management tool.

SHORT-RANGE TRAINING PLAN

The short-range training plan contains the planning and scheduling of training. Effective scheduling requires careful attention by the chain of command to minimize conflicts and to maximize opportunities. The short-range training plan should include the following information:

1. The Quarterly Employment Schedule (similar to fig. 5-6)

2. The Quarterly Training Plan (similar to fig. 5-7)
3. The Monthly Training Plan (similar to fig. 5-8)
4. The Weekly Training Schedule (similar to fig. 5-9)

Quarterly Training Plan

During the Planning Board for Training in the month before an upcoming quarter, the training officer distributes copies of the Quarterly Employment Schedule to the board members. Using this schedule as a guide, the Planning Board for Training develops broad unit training plans for the upcoming quarter. The purpose of this Quarterly Training Plan is to make training groups aware of unit plans that may affect the scheduling or conduct of group training. Once the Planning Board for Training has developed the unit Quarterly Training Plan, department heads add any additional broad departmental plans and provide a copy to each training group within the

QUARTERLY EMPLOYMENT SCHEDULE
QUARTER, FISCAL YEAR
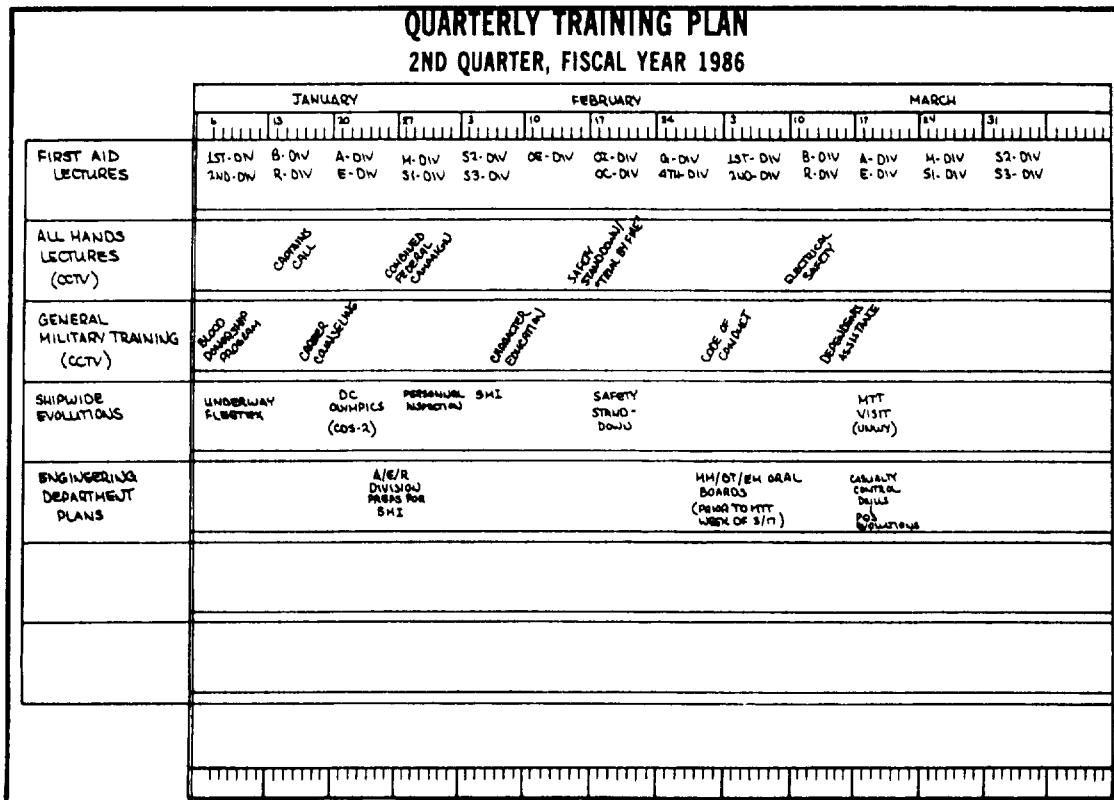
Figure 5-6.-Example of a Quarterly Employment Schedule.

QUARTERLY TRAINING PLAN
2ND QUARTER, FISCAL YEAR 1986

	JANUARY				FEBRUARY				MARCH			
	6	13	20	27	3	10	17	24	3	10	17	24	31
FIRST AID LECTURES	1ST-DIV 2ND-DIV	B-DIV R-DIV	A-DIV E-DIV	M-DIV S1-DIV	S2-DIV S3-DIV	OE-DIV	OI-DIV OC-DIV	Q-DIV 4TH-DIV	1ST-DIV 2ND-DIV	B-DIV R-DIV	A-DIV E-DIV	M-DIV S1-DIV	S2-DIV S3-DIV
ALL HANDS LECTURES (CCTV)	CAPTAINS CALL		COMBINED FEDERAL CAMPAIGN			SAILOR STANDDOWN/ STEAM BY PAC				ELECTRICAL SAFETY			
GENERAL MILITARY TRAINING (CCTV)	BLOOD DONORSHIP PROGRAM	CAREER COUNSELING			CARPOOLING EDUCATION				CODE OF CONDUCT		DEPENDENT ASSISTANCE		
SHIPWIDE EVOLUTIONS	UNDERWAY FLEETEX	DC OLYMPICS (COS-2)	PERSONNEL INSPECTION	SMI	SAFETY STAND-DOWN					MTT VISIT (UNLV)			
ENGINEERING DEPARTMENT PLANS		A/E/R DIVISION PREPS FOR SMI				MM/BT/EM ORAL BOARDS (PRIOR TO MTT WEEK OF 3/17)	CASUALTY CONTROL DRILLS PQS EVOLUTIONS					

Figure 5.7.-Example of a Quarterly Training Plan.

MONTHLY TRAINING PLAN

MONTH OF __MARCH 1986__   TRAINING GROUP __B-DIVISION__

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3 B9-1200# AUX STEAM SYSTEM BT2 HOTEL	4 EMOW ORAL BOARDS	5 B35-F.O. XFER AND STORAGE BT2 GOLF	6 BT L/L ORAL BOARDS	7 B38-ABC SYSTEM BT1 DELTA	8
9	10 B42 EOSS USE LT WILCOX	11 MMOW ORAL BOARDS	12 B46-COLD/HOT CHECKS BTCS ALFA	13 BTOW ORAL BOARDS	14 B45 MLOC PROCEDURES LT WILCOX	15 LIGHT-OFF UNDERWAY AM 3/17 FOR MTT
16	17 B50-HEAT STRESS BT2 FOXTROT	18 UNDERWAY ENGINEE...	19 ...RING MOBILE TRAINING TEAM VISIT PQS EVOLUTIONS & CASUALTY CONTROL DRILLS	20	21	22
23 30	24 B52 BOILER LAYUP BTC BRAVO 31	25 EOOW ORAL BOARDS	26 B48-EEBD BT1 ECHO	27 MM MESS ORAL BOARDS	28 B40-VALVE MAINTENANCE BTCS ALFA	29

SUBMITTED BY: __W. W. Wilcox, LT, USN__
    B-DIVISION OFFICER

APPROVED BY: __J. P. Jones, LCDR, USN__
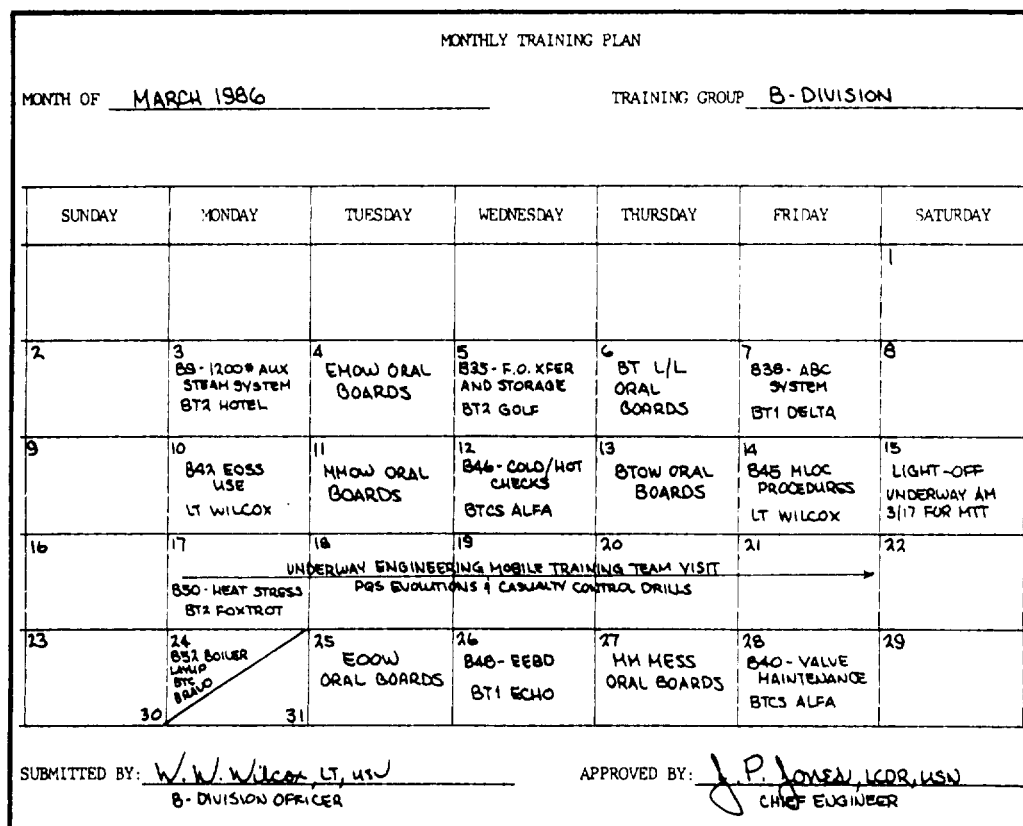   CHIEF ENGINEER

Figure 5-8.-Example of a Monthly Training Plan.

WEEKLY TRAINING SCHEDULE

WEEK OF: 9-15 MARCH 1986

DEPARTMENT ENGINEERING

SUNDAY 3/9	MONDAY 3/10	TUESDAY 3/11	WEDNESDAY 3/12	THURSDAY 3/13	FRIDAY 3/14	SATURDAY 3/15
DUTY SECTION I	0815 FIRST AID LECTURE R-DIV MESS DECKS - HM1 PILL	1000- ALL HANDS ELECT SAFETY ON CCTV		0815 FIRST AID LECTURE B-DIV MESS DECKS - HM1 PILL		DUTY SECTION III
DUTY ENGINEER EXERCISE BOTH FIRE PARTY AND R&A TEAM						DUTY ENGINEER EXERCISE BOTH FIRE PARTY AND R&A TEAM
	1230- DIV TRNG		1230- DIV TRNG		1230- DIV TRNG	1500 LIGHT FIRES IN IA BOILER-
	A- A13 AC&R BOAT SHOP HM1 ROMEO	1300- CAPTAIN'S MAST	A- A11 REEFERS BOAT SHOP HM2 SIERRA		A- A37 MAIN DRAIN BOAT SHOP EN1 PETERS	HTT VISIT NEXT WEEK -
	B- B42 EOSS/EOCC COP1 LT WILCOX BERTHING COMP		B- B46 COLD/HOT CHECKS BTCS ALFA BERTHING COMP.	1500- DUTY ENG COMMENCE HLOC PROCEDURES FOR SATURDAY LIGHT OFF	B45 HLOC BERTHING COMP LT WILCOX	ALL DIV OFFS ENSURE PERSONNEL ARE BRIEFED ON SCHEDULE
	M- M42 EOSS/EOCC LT WILCOX BERTHING COMP		M- M46 COLD/HOT CHECKS HMCH SMITH CWO B-R.		M- M45 HLOC BERTHING COMP LT WILCOX	
	E- E12 SP PHONES IC SHOP IC2 MIKE		E- E31 GYROS IC SHOP IC3 PAPA		E- E17 SSTGS IC SHOP EM1 DOLAN	
	R- R14 P-250 HT SHOP HT3 TANGO		R- R5 HKV GAS MASK HT SHOP HTFN OSCAR		R- R40 TAU HT SHOP LTJG WILLIAMS	
		1600- MMOW ORAL BOARDS IN CHIEFS MESS		1600- BTOW ORAL BOARDS IN CHIEFS MESS		

PROMULGATED BY: J. P. Jones, LCDR, USN
CHIEF ENGINEER

Figure 5-9.-Example of a Weekly Training Schedule.

department. Training, planning, and scheduling for periods shorter than the quarter take place at the departmental level.

Monthly Training Plan

Using the Quarterly Training Plan as a guide, each training group submits a proposed Monthly Training Plan to the cognizant department head not later than the last week preceding the upcoming month. This plan indicates the training to be conducted on specific days and who the instructor will be. The department head reviews and approves each training group monthly plan. The department head keeps copies of all the department's training group monthly training plans and uses the compiled package as the primary tool for scheduling training at the Planning Board for Training.

Weekly Training Schedule

Each week after the Planning Board for Training, the department head provides each training group within the department a copy of a single Department Weekly Training Schedule. The single schedule includes all training applicable to the Department. Don't make changes to this weekly schedule without the approval of the cognizant department head. This schedule should indicate the time of the training and where it will be conducted.

TRAINING ACCOMPLISHMENT RECORDS

Scheduling of training requires careful attention to reduce conflict in activities and to ensure training time is used to the best advantage.

Keep training records to an absolute minimum; maintain only those needed to show what training has been accomplished and what remains to be done. The true measurement of training effectiveness is the job performance of personnel. Training records help you measure job performance in the simplest way possible. You may record all training on a General Record (Type II),

5-15

OPNAV Form 1500-31 (fig. 5-10). You can also use it as an attendance sheet. Each training group supervisor maintains records for personnel assigned to his or her group. Keep training records on your personnel as long as they are assigned to your unit.

You may prepare training plans, schedules, and records by typing, handwriting, or using an automatic data processing (ADP) or word processing system. Individual commands or type commanders, as appropriate, may specify the retention period for training plans and records. Training plans should be retained long enough to assist with planning for the training cycle. For additional information on training, refer to OPNAVINST 3120.32B, *Standard Organization and Regulations of the U.S. Navy,* chapter 8.

SUMMARY

The more senior a petty officer, the greater are his or her responsibilities for training. As a second class petty officer, you need to know various techniques for conducting a proper and effective training program. You must understand the importance of effective training. Inadequate training practices can affect the operational readiness and performance of your command.

Various features and requirements make a unit's training program efficient and effective. The three basic features are compatibility, instruction and evaluation, and analysis. The basic requirements of effective training include dynamic instruction, positive leadership, personal interest, quality control, technical support, and regular training schedules. For a training program to be positive and effective, it must meet those requirements.

Training is more effective if conducted in small groups. The most effective training method is an in-house training program tailored to the needs of your command. The different types of in-house training methods include orientation, on-the-job, refresher, and career or professional development. Other instructional techniques include lectures, discussions, and demonstrations. Give lectures when you are teaching a large volume of information. Begin class discussions to get trainees to interact. Use the demonstration method to teach skills. You will find the use of a lesson summary, oral questioning, and training aids helpful in most situations.

Once you set up a unit training program, routinely schedule and plan training. Become familiar with long-range and short-range training

Figure 5-10.-Example of training record.

plans and all of the other schedules that affect training schedules.

Use the division schedule to plan and record the accomplishment of all training. Training petty officers should use the weekly schedule to schedule, record, and report completed training.

REFERENCES

Standard Organization and Regulations of the U.S. Navy, OPNAVINST 3120.32B, Office of the Chief of Naval Operations, Washington, D.C., 1988.